

H.R. 1215, the Green Chemistry Research and Development Act of 2005

(introduced by Representative Phil Gingrey)

Summary of H.R. 1215

The Green Chemistry Research and Development Act would authorize an interagency green chemistry research and development (R&D) program. The National Science Foundation and the Environmental Protection Agency would lead an Interagency Working Group to coordinate federal green chemistry activities. The Working Group would also include the Department of Energy and the National Institute of Standards and Technology, as well as any other agency the President designates. The program would be authorized at \$33 million in FY06 rising to \$38 million in FY08 (from within existing authorizations).

The Program would support R&D grants, including grants for university-industry partnerships, support green chemistry R&D at federal labs, promote education through curricula development, and collect and disseminate information about green chemistry. The bill also includes a National Academy of Sciences study to identify the barriers to successful commercialization of green chemistry products and processes.

The legislation aims to integrate Federal green chemistry R&D activities and ensure that these activities are focused on reducing barriers to greater adoption of green chemistry. As one example, many companies cite lack of a workforce skilled in green chemistry techniques as a barrier to further adoption. H.R. 1215 seeks to expand green chemistry education at the undergraduate, graduate, and professional levels. The bill has already been endorsed by the American Chemical Society, Rohm & Haas Company, DuPont, Dow Corning, Pfizer, Inc., Genencor, Kodak, Shaw Industries and the Carpet and Rug Institute.

What is green chemistry?

Chemical manufacturing is the source of many useful products upon which we depend such as medicines, plastics, fuels, and fabrics. However, chemical manufacturing has also resulted in harm to the environment and human health. Green chemistry is an important and emerging science that seeks to prevent this harm by focusing on preventing pollution in the first place rather than on just limiting the spread of pollutants, cleaning up waste, or assessing fines to polluters.

Green chemistry is most commonly defined as chemistry that involves the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. An example of green chemistry is the development of pesticide alternatives that are effective at killing target organisms, but are benign to non-target organisms and do not persist in the environment. Another common example is the development of plastics from renewable starting materials, like corn, instead of petroleum-based starting materials.

What are the benefits of green chemistry?

Green chemistry has many obvious benefits for human health and the environment, but it also offers many improvements to worker safety, public safety, and national security. The elimination of toxic substances and hazardous reaction conditions improves the working environment for employees and reduces the risk to the public from accidental chemical releases. Also, reducing the number of toxic chemical plants and the transport of toxic chemicals improves national security by reducing the number of potential terrorist targets. In addition, green chemistry can save businesses money by improving process efficiency and give them a competitive edge over traditional chemical products and processes.